

Available online at www.sciencedirect.com**ScienceDirect**

Procedia - Social and Behavioral Sciences 141 (2014) 1019 – 1024

Procedia
Social and Behavioral Sciences

WCLTA 2013

Planning –Design Training and Universal Design

Yelda Aydın Türk

Karadeniz Technical University, Faculty of Architecture, Department of City and Regional Planning, 61080, Trabzon

Abstract

In its broadest term, Universal Design (UD) is “design for all people”. Design training should train individuals that design suitable spaces for all kinds of needs and users so that designers who are aware of this could adopt the notion of “universal design” more. To achieve this, the notion of “universal design” should be incorporated into all departments that offer planning and design training. The aim of the study is to identify the place and nature of the notion of “Universal Design” in the design and planning training in Turkey, and to discuss the insufficiencies and proposals for solutions in the design training. In line with the above-mentioned aims of the study, the data that were obtained through a literature review will be evaluated and the syllabi of the planning- and design-related departments in the universities will be examined. The number and contents of the compulsory and elective courses in the syllabi that incorporate the “notion of universal design” will be probed into. As a result; the study will present some conclusions and recommendations in order to evaluate and improve the notion of “Universal Design or “Design for All People” in the syllabi of the master’s and doctoral programs on design and planning in Turkey.

© 2014 Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/3.0/>).

Selection and peer-review under responsibility of the Organizing Committee of WCLTA 2013.

Keywords: Design and planning training, universal design, design for all people;

1. Introduction

Universal Design (UD), in the broadest term, is “design for all people”. Its focus is not specifically on people with disabilities, but all people [URL 2]. The move towards universal design has developed due to the expanding population of people with varying degree of abilities and advancing years, their demands for recognition and desire for independent living [URL1]. “Universal design” targets all people at different ages. Children, the elderly, the disabled, people with different sizes and forms, sick or injured people and people with discomfort are in this range.

Corresponding Author: Yelda Aydın Türk
E-mail: yeldaaydinturk@gmail.com

The main aim of the universal design is not to make people fit to space but to make the space fit to people [Demirkan, 2011]. To do this, by considering the needs of different people, the efficiency of the space should be increased and necessary precautions must be taken in order for the users to use the space in a safe and reliable way [Demirkan, 2011]. This philosophy poses the condition that products, physical environment and services should reach people and that people should be able to use them in the widest way possible. Fulfilling this condition, improving the life quality of the spaces, health, safety and welfare of people to the highest level are the task of the planners and designers. Therefore, design training must produce individuals who design spaces that address all needs and users. Designers who are aware of this will gradually adopt the universal design more and more. In order to achieve this, the notion of “universal design” must be incorporated into all institutions that offer design and planning training. Necessary precautions must be taken in order for the education system to have the universal standards and information base that the modern day requires. In this respect, it is extremely important that the notion of universal design be comprehended, its principles be examined and its worldwide applications be learned by the students taking design and planning training. The inadequate number of courses on the “notion of universal design” in the departments offering planning and design training on the physical environment in Turkey hinders this notion to be known and adopted. Thus, it is of paramount importance that the undergraduate and master’s programs in such departments as architecture, urban and regional planning, interior architecture, landscape architecture, industrial design that offer design training in Turkish universities should offer courses that are based on the notion of “universal design” or “design for all” as compulsory lessons as well as electives; that this issue should not be ignored in studio classes; that symposia, seminars and conferences should be organized in academic platforms; and that projects should be developed.

Based on what we have said up to now, the aim of this study is to reveal the place and nature of the notion of “universal design” in the design and planning training, and to discuss the inadequacy of, and solution proposals for, “universal design” in design training.

2. The Importance of Universal Design in Education

Based on the above-mentioned justifications, it is clear that as a result of the inclusion of the courses that contain such notions as universal design, design for all, inclusive design, and ergonomics into the educational programs of the universities that offer design and planning training, and as a result of the reflections of the universal design principles in the design applications, the safety and comfort conditions of the built environments will improve and therefore healthy living conditions will be achieved. It has been affirmed that the courses that teach and discuss universal design notions in educational programs help students learn and consolidate universal design notions. Besides, having grasped the universal design rules and philosophy of life, students consider themselves as competent in analyzing inner and outer spaces. [Olguntürk and Demirkan, 2009]. It has been found that such courses increase students’ awareness of universal design problems and that this awareness has been effective in increasing students’ achievement in design and planning studios [Olguntürk and Demirkan, 2009].

In both national and international meetings, the inadequacies in design training were articulated by academicians and universities, and various studies have been carried out to find solutions to this problem [URL1]. The Committee of Ministers of the Council of Europe made a decision in February 2001 under the title of “Resolution Res AP”. In this decision, the committee recommended that the universal design approach be included in the programs of all professions at all educational levels offering training on manmade environment [URL 1].

It has been documented that the integration of universal design with education can be achieved through three kinds of strategy:

- including it into a present course,
- including it into a design studio, and
- including it into all educational programs [Demirkan, 2011]. Therefore, courses that can be used to teach and apply the universal design rules, studio works, and other applications must be included in educational programs.

3. Findings And Discussion

In order to identify the nature of the issues on universal design in the undergraduate programs of the departments

that offer design and planning training in the state universities in Turkey, the study investigated the syllabi of such departments as architecture, interior architecture, urban and regional design, and landscape architecture. The study also investigated the numbers and contents of the courses that are named as “universal design, design for the disabled, inclusive design, etc”. To do this, a total of 43 universities were included in the study. Of the departments that were investigated, 26 were department of architecture, 10 were department of interior architecture, 14 were department urban and regional design, and 22 were department of landscape architecture.

Table 1. Departments that offer training on planning and design in state universities in Turkey.

University		Department
1	Akdeniz University	Architecture, Interior Architecture, Landscape Architecture
2	Anadolu University	Architecture, Interior Architecture
3	Ankara University	Landscape Architecture
4	Artvin Çoruh University	Landscape Architecture
5	Adnan Menderes University	Landscape Architecture
6	Atatürk University	Landscape Architecture
7	Balıkesir University	Architecture
8	Bozok University	Architecture, Urban and Regional Planning
9	Çanakkale On Sekiz Mart University	Landscape Architecture
10	Çukurova University	Architecture, Interior Architecture, Landscape Architecture
11	Dicle University	Architecture
12	Dokuz Eylül University	Architecture, Urban and Regional Planning
13	Düzce University	Landscape Architecture
14	Ege University	Landscape Architecture
15	Erciyes University	Architecture, Urban and Regional Planning
16	Gazi University	Architecture, Urban and Regional Planning
17	Gaziantep University	Architecture, Interior Architecture, Urban and Regional Planning
18	Gebze Institute of Technology	Architecture
19	Hacettepe University	Interior Architecture
20	İnönü University	Landscape Architecture
21	İstanbul Technical University	Architecture, Urban and Regional Planning, Interior Architecture, Landscape Architecture
22	İstanbul University	Landscape Architecture
23	İzmir Institute of Technology	Architecture, Urban and Regional Planning
24	Kahramanmaraş Sütçü İmam University	Landscape Architecture
25	Karabük University	Architecture
26	Karadeniz Technical University	Architecture, Interior Architecture, Urban and Regional Planning, Landscape Architecture
27	Kastamonu University	Landscape Architecture
28	Kocaeli University	Architecture, Interior Architecture
29	Mardin Artuklu University	Architecture
30	Marmara University	Interior Architecture
31	Mersin University	Architecture, Urban and Regional Planning
32	Mimar Sinan University	Architecture, Urban and Regional Planning, Interior Architecture
33	Mustafa Kemal University	Landscape Architecture
34	Namık Kemal University	Landscape Architecture
35	Ordu University	Landscape Architecture
36	Middle East Technical University	Architecture, Urban and Regional Planning
37	Selçuk University	Architecture, Urban and Regional Planning, Landscape Architecture
38	Süleyman Demirel University	Architecture, Urban and Regional Planning, Landscape Architecture
39	Trakya University	Architecture, Landscape Architecture
40	Uludağ University	Architecture
41	Yıldız Technical University	Architecture, Urban and Regional Planning
42	Yüzüncü Yıl University	Architecture
43	Zonguldak Karaelmas University	Landscape Architecture

Of these 43 universities, the syllabi of 19 universities had a total of 21 elective courses that contained the notion of “universal design” (Table 2). When examined departmentally, it was found that “universal design” is included as an elective course in 10 departments of architecture, 4 departments of interior architecture, 2 departments of urban and regional planning, and 4 departments of landscape architecture. The contents of such different courses as *accessibility for all, design criteria for the physically disabled, landscape design for the disabled, architectural design for the disabled, designing pedestrian spaces and pedestrian walkways, universal design, ergonomics,*

environmental design for the disabled and elderly, design without obstacles, human factor in design, user perspective on architecture and environmental design, environmental and spatial design, universal design principles, legal approach to disability and architecture, Principles of Universal Design, design for the disabled, the factor of the disabled in design, special space design for the elderly, the disability factor in design, standards for unobstructed spaces were examined and it was found that the contents of some of the courses included the notion of “universal design” as course units (Table 2). Furthermore, when these courses were examined in terms of whether they were electives or compulsory courses or at what level they were taught, all of them were found to be elective courses only and there were no compulsory theoretical and applied courses.

Table 2. The syllabi of the universities that were investigated in terms of the notion of “universal design”.

University	Department	Name of Course	Remarks
Akdeniz University	Architecture	-----	
	Interior Architecture	-----	
	Landscape Architecture	-----	
Anadolu University	Architecture	Accessibility for all	Elective (2+2)
	Interior Architecture	Design criteria for the physically disabled	Elective (2+0)
Ankara University	Landscape Architecture	Landscape design for the disabled	Elective
Artvin Çoruh University	Landscape Architecture	-----	
Adnan Menderes University	Landscape Architecture	-----	
Atatürk University	Landscape Architecture	-----	
Balıkesir University	Architecture	-----	
Bozok University	Architecture	-----	
	Urban and Regional Planning	-----	
Çanakkale Onsekiz Mart University	Landscape Architecture	-----	
Çukurova University i	Architecture	-----	
	Interior Architecture	-----	
	Landscape Architecture	-----	
Dicle University	Architecture	-----	
Dokuz Eylül University	Architecture	-----	
	Urban and Regional Planning	-----	
Düzce University	Landscape Architecture	-----	
Ege University	Landscape Architecture	-----	
Erciyes University	Architecture	-----	
	Urban and Regional Planning	-----	
Gazi Üniversitesi	Architecture	Architectural design for the disabled	Elective (2+0)
	Urban and Regional Planning	Designing pedestrian spaces and pedestrian walkways	Elective (2+0)
Gaziantep Üniversitesi	Architecture	-----	
	Interior Architecture	-----	
	Urban and Regional Planning	-----	
Gebze Institute of Technology	Architecture	-----	
Hacettepe University	Interior Architecture	Universal Design	Elective (2+2)
		Ergonomy	Elective (1+2)
İnönü University	Landscape Architecture	-----	
İstanbul Technical University	Architecture	Environmental design for the disabled and elderly	Elective (3+0)
	Interior Architecture	-----	
	Urban and Regional Planning	-----	
İstanbul University	Landscape Architecture	-----	
	Landscape Architecture	-----	
İzmir Institute of Technology	Architecture	-----	
	Urban and Regional Planning	-----	
Kahramanmaraş Sütçü İmam University	Landscape Architecture	Design without obstacles	Elective (2+0)
Karabük University	Architecture	-----	
Karadeniz Technical University	Architecture	-----	
	Interior Architecture	design for the disabled	Elective (2+0)
	Urban and Regional Planning	-----	
Kastamonu University	Landscape Architecture	-----	
	Landscape Architecture	-----	
Kocaeli University	Architecture	-----	

Mardin Artuklu University	Interior Architecture	-----	
Marmara University	Architecture	-----	
Mersin University	Interior Architecture	Human factor in design	Elective (2+0)
	Architecture	User perspective on architecture and environmental design	Elective (3+0)
	Urban and Regional Planning	-----	
Mimar Sinan University	Architecture	Environmental and spatial design	Elective (2+0)
	Interior Architecture	Universal design principles	Elective (2+0)
		Legal approach to disability and architecture	Elective (2+0)
	Urban and Regional Planning	-----	
Mustafa University	Landscape Architecture	-----	
Namık Kemal University	Landscape Architecture	-----	
Ordu University	Landscape Architecture	-----	
Middle East Technical University	Architecture	Principles of Universal Design	Elective (3+0)
	Urban and Regional Planning	-----	
Selçuk University	Architecture	-----	
	Urban and Regional Planning	-----	
	Landscape Architecture	-----	
Süleyman Demirel University	Architecture	-----	
	Urban and Regional Planning	-----	
	Landscape Architecture	Design for the disabled	Elective (2+0)
Trakya University	Architecture	Disability factor in design	Elective (2+0)
	Landscape Architecture	-----	
Uludağ University	Architecture	Designing custom spaces for the elderly	Elective (2+0)
Yıldız Technical University	Architecture	Disability factor in design	Elective (2+0)
	Urban and Regional Planning	-----	
Yüzüncü Yıl University	Architecture	Disability factor in design	Elective (2+0)
Zonguldak Karaelmas University	Landscape Architecture	Standards for unobstructed spaces	Elective (2+0)

4. Conclusions And Recommendations

The findings of the study show that the inadequacy of the courses that contain the “notion of universal design” in the departments that offer training on the design and planning of the physical environment in Turkey makes it difficult for this notion to be known and adopted. For this reason, it is extremely important that especially the undergraduate programs in the departments such as architecture, urban and regional planning, interior architecture, landscape architecture, industrial products design that offer design training in Turkish universities offer courses that are based on the notion of “universal design” or “design for all” as compulsory lessons as well as electives; that this issue not be ignored in studio classes; that symposia, seminars and conferences be organized in academic platforms; and that projects be developed. In order to achieve this, the related departments offering such training in different universities must replace the courses which do not contain anything about the issue of universal design with courses that do. When planning changes in the syllabi in such departments, the “universal design” issues must be taken into consideration during the preparation process of course contents, all kinds of activities about universal design must be included into the departmental strategic plans, and departments must collaborate with local authorities and non-governmental organizations. The “Workshop on Design for All” carried out in June 2011 with the coordination of Higher Education Council within the Accessibility Strategy and Action Plan carried out by the General Directorate of the Services for the Disabled and Elderly articulated that learning environments needed to be revised in terms of both physical conditions and accessibility to classes, and that efforts should be made to create a framework for the integration of “universal design” into design and planning training. In line with the decisions made here, a notice on the inclusion of the issue of “universal design” into the syllabi was decided to be sent to all universities in the General Meeting of Higher Education Council on 22 September 2011.

Furthermore, increasing the awareness of the faculty and adding this issue to the learning outcomes are important. When the “design for all” awareness is reflected in the design process, all the notions of “universal design” or “design for all”, which do not find enough place in the syllabi, will be accepted as a natural part of design process.

References

- Demirkan, H. (2011). Tasarım eğitiminde herkes için tasarım yaklaşımı: Tasarım deneyimleri ve uygulamaları, Herkes için Tasarım Müfredatı Geliştirme Çalıştayı, Anadolu Üniversitesi, 16-17. Haziran 2011, Eskişehir
- Nilgün Olguntürk and Halime Demirkan. (2009). Ergonomics and universal design in interior architecture education, *Metu Jfa*, (26:2) 123-138
- URL-1-Universal Design Guide, 2007, Building and Construction Authority Published by Building and Construction Authority, 5 Maxwell Road #16-00 Tower Block MND Complex Singapore 069110, ISBN 978-981-05-9256-1, http://www.bca.gov.sg/barrierFree/others/ud_guide_2007.pdf
- URL-2, Mace, R.(1998).A Perspective on universal design”, Excerpt of a presentation made by Ronald L. Mace, FAIA, at “Designing for the 21st Century: An International Conference on Universal Design,” June 19, 1998, Hofstra University, Hempstead, New York, http://www.ncsu.edu/ncsu/design/cud/about_us/usronmacespeech.htm